Listing of Claims

This listing of claims will replace all prior versions and listing of claims in the Application.

Claims 1-12 (Canceled)

Claim 13 (CURRENTLY AMENDED): An orthopedic implant flexible intramedullary nail comprising:

a ~~straight~~ single flexible nail of universal length ~~being adapted in use for insertion into a medullary canal of bones and capable for repositioning and fixing fragments of bones having at least 15% of elongation of nail on tensile stress and~~ having ~~two ends~~

a first free end , a second free end and a shaft defining a long axis of said nail wherein ~~said ends are having a blunt conical pathfinder tip and~~ said shaft and said ends are having a plurality of curvatures at a plurality of planes along said long axis ~~flexibility such that~~ thereby allowing said nail ~~it is capable~~ to fix, reposition and maintain relation of fragments of a bone at multiple contact points of fixation inside a medullary canal of said bone ~~be bowed to any angle or any curvature to adapt said medullary canal and capable to maintain relation of fragments of bones having multiple contact points of fixation~~ ,said nail further characterized having 15% -25% of elongation on tensile stress.

Claim 14 (CURRENTLY AMENDED): An orthopedic implant flexible intramedullary nail of claim 13 wherein said flexible nail is having ultimate tensile strength of ~~at least~~ about 600-800 Mega Pascal.

Claim 15 (PREVIOUSLY PRESENTED): An orthopedic implant flexible intramedullary nail of claim 13 wherein said flexible nail is characterized having made from material comprising one of 316 L (low carbon) or 316 LVM (low carbon vacuum melted) stainless steel or other biocompatible material.

Claim 16 (CURRENTLY AMENDED): An orthopedic implant flexible intramedullary nail of claim 13, wherein said first and second ends are identical.

Claim 17 (CURRENTLY AMENDED): An orthopedic implant intramedullary flexible nail assembly being adapted in use for insertion into a medullary canal of a ~~long~~ bones comprising:

A) a plurality of flexible ~~intramedullary~~ nails wherein each of said flexible ~~intramedullary nails comprising a straight flexible~~ nail of universal length ~~being adapted in use for insertion into said intra - medullary canal of - long bones and capable for repositioning and fixing fragments of bones~~ having identical two free ends and a shaft defining a long axis of said nail wherein ~~said ends are having a blunt conical pathfinder tip and~~ said shaft and said ends are having a plurality of curvature at a plurality of planes along said long axis ~~flexibility such that~~ thereby allowing said nail ~~it is capable~~ to fix, reposition and maintain relation of fragments of said bone at multiple contact points of fixation inside said medullary canal ~~be bowed to any angle or any curvature to adapt said medullary canal and capable to maintain relation of fragments of bones having multiple contact points of fixation~~ , ~~wherein~~ said flexible nail is further characterized having a percentage of elongation ~~of at least~~ 15% -25% on tensile stress; and

B) a proximal fixation device comprising:

a) an intramedullary rod extending to substantially a partial length of said plurality of flexible nails and not extending across a fracture zone having a shaft part with a plurality of longitudinal grooves spaced around a periphery of the said intramedullary rod, the said intramedullary rod having a head portion temporarily adaptable to a suitable targeting device,

b) an end cap adaptable to said head portion of said intramedullary rod.

Claim 18 (PREVIOUSLY PRESENTED): An orthopedic implant assembly of claim 17 wherein said shaft part of said intramedullary rod has a plurality of holes for a plurality of interlocking screws, wherein said holes are placed in either transverse direction or an angled direction to a long axis of said shaft part of said intramedullary rod to receive said interlocking screws.

Claim 19 (Canceled)

Claim 20 (CURRENTLY AMENDED): An orthopedic implant assembly of claim 17, wherein said flexible nail and said proximal fixation device ~~intramedullary rod and said end cap~~ are made from same material comprising one of 316 L(low carbon) or 316 LVM (low carbon vacuum melted) stainless steel or other biocompatible material.

Claim 21 (CURRENTLY AMENDED): An orthopedic implant assembly of claim 17, wherein said intramedullary rod is having a distal end tapering to a blunt point ~~capable for easy insertion into said medullary canal~~.

Claim 22 (PREVIOUSLY PRESENTED): An orthopedic implant assembly of claim 17, wherein said end cap is comprising a head part with a plurality of holes to retain a plurality of hooked cut ends of said flexible nails and a shaft part to have final attachment with said head portion of said intramedullary rod to have proximal anchor of plural said flexible nails to add stability.

Claim 23 (WITHDRAWN, CURRENTLY AMENDED): A plier cum knurler cum cutter to be used with a flexible intramedullary nail to hold, to cut and to make surface rough of a cut end of said flexible nail , said flexible ~~intramedullary~~ nail comprising:

a ~~straight~~ single flexible nail of universal length ~~being adapted in use for insertion into a medullary canal of a bone and capable for repositioning and fixing fragments of bones having at least 15% of elongation of nail on tensile stress and~~ having ~~two ends~~ a first free end ,a second free end and a shaft defining a long

axis of said nail wherein ~~said ends are having a blunt conical pathfinder tip and~~ said shaft and said ends are having a plurality of curvature at a plurality of planes along said long axis ~~flexibility such that~~ thereby allowing said nail ~~it is capable~~ to fix, reposition and maintain relation of fragments of said bone at multiple contact points of fixation inside said medullary canal ~~be bowed to any angle or any curvature to adapt said medullary canal and capable to maintain relation of fragments of bones having multiple contact points of fixation~~ ,said nail further characterized having 15% -25% of elongation on tensile stress.;

said plier cum knurler cum cutter comprising:

a knurler part and a cutting part wherein on operation of said plier cum knurler cum cutter , said cutting part cut said flexible nail at a distance substantially equal to 1 centimeter from a entry point on a surface of said bone and said knurler part makes a surface of said cut ends of said flexible nail rough for easy removal later on.

Claim 24 -27 (CANCELLED)

Claim 28 (WITHDRAWN,CURRENTLY AMENDED): A method of treating a bone having a medullary canal fractured into a plurality of fragments using at least one intramedullary flexible nail and providing means for removal of said flexible nail without irritating soft tissue comprising steps of :

a) making an entry in bone leading to said medullary canal of said bone; and
b) pushing said flexible nail through said entry into said medullary canal irrespective to shape of said medullary canal, said flexible nail comprising: a ~~straight~~ flexible nail of universal length ~~being adapted in use for insertion into a medullary canal of~~

~~bones and capable for repositioning and fixing fragments of bones having at least 15% of elongation of nail on tensile stress and~~ having ~~two ends~~ a first free end ,a second free end and a shaft defining a long axis of said nail wherein ~~said ends are having a blunt conical pathfinder tip and~~ said shaft and said ends are having a plurality of curvatures at a plurality of planes along said long axis ~~flexibility such~~

~~that~~ thereby allowing said nail ~~it is capable~~ to fix, reposition and maintain relation of fragments of said bone at multiple contact points of fixation inside said medullary canal ~~be bowed to any angle or any curvature to adapt said medullary canal and capable to maintain relation of fragments of bones having multiple contact points of fixation~~ ,said nail further characterized having 15% -25% of elongation on tensile stress.

Claim 29 (WITHDRAWN, CURRENTLY AMENDED): The method of treating a bone of claim 28, further comprising step of :

after final pushing a non leading end is cut substantially keeping 1 cm or less outside said entry to prevent soft tissue irritation and a surface of a cut end of said flexible nail is roughened to have grip for easy removal of said flexible nail later on.

Claim 30 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein said shaft has a first cross section diameter , said first end and said second ends are having a second cross section diameter ,wherein said second diameter is smaller than said first diameter.

Claim 31 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein said nail has a uniform surface along whole length.

Claim 32 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein said first free end and said second free end are having a conical path finder tip.

Claim 33 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein a plurality of said flexible nails is characterized where each one of said nails is mutually free from each one another of said nails along whole length of said flexible nail.

Claim 34 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein said plurality of said flexible nails is characterized where each one of said nails is freely repositionable relative to each one another of said nails.

Claim 35 (NEW): An orthopedic implant flexible intramedullary nail of claim 13, wherein a protruding cut end is out at a distance substantially equal to 1cm from an entry in said bone, wherein said protruding end is roughened.

Claim 36 (NEW): An orthopedic implant assembly of claim 17, wherein said plurality of said flexible nails is characterized where each one of said nails is freely repositionable relative to each one another of said nails.

Claim 37 (NEW): An orthopedic implant assembly of claim 17, wherein said shaft of said flexible nail has a first cross section diameter, said first end and said second ends are having a second cross section diameter ,wherein said second diameter is smaller than said first diameter.